Jan. 15, 1963 A. J. BURMEISTER 3,073,381

SEALING MECHANISM FOR PARTITION PANELS AND THE LIKE

Filed Feb. 23, 1960

3 Sheets-Sheet 1

Fig. 1

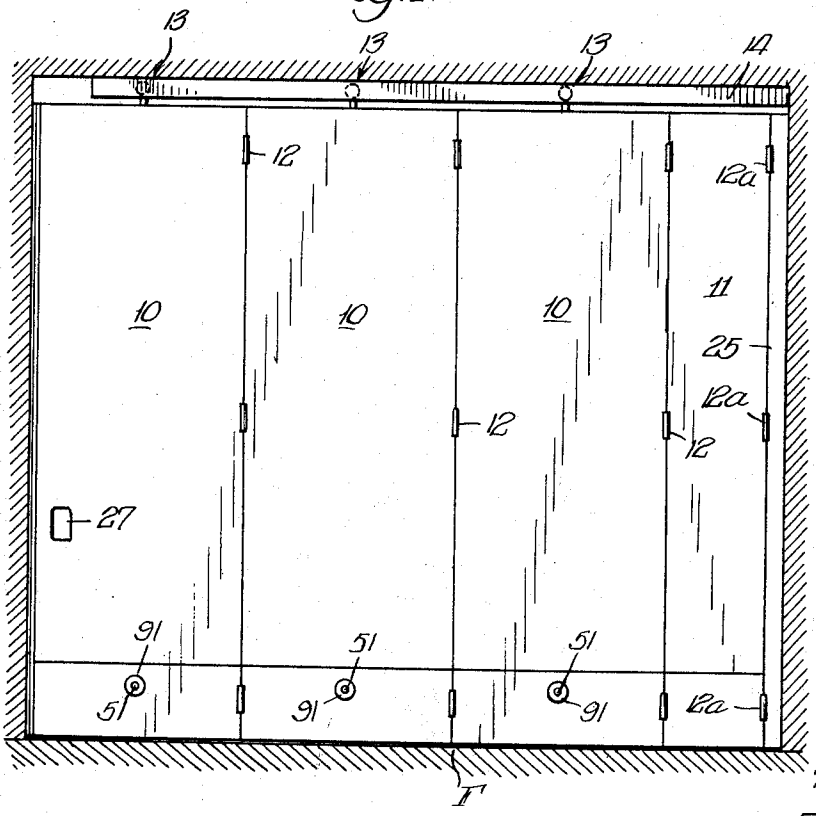


Fig. 7

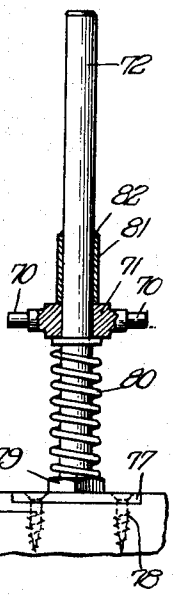
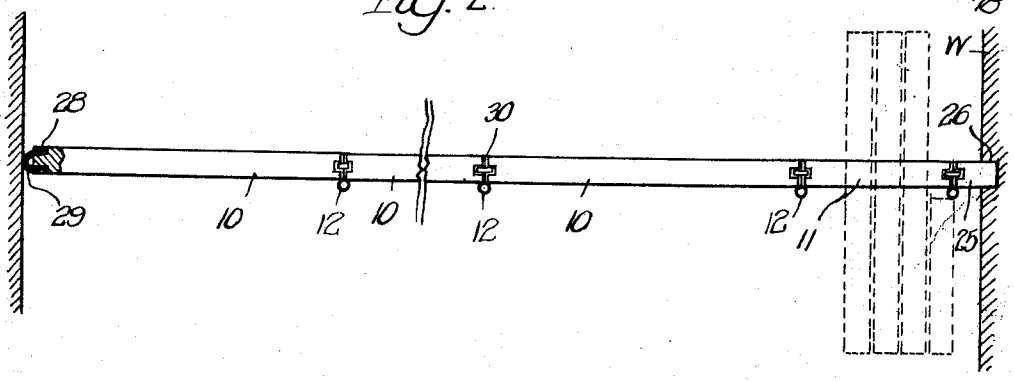


Fig. 2



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SEALING MECHANISM FOR PARTITION PANELS AND THE LIKE

Filed Feb. 23, 1960 3 Sheets-Sheet 2

Fig. 3

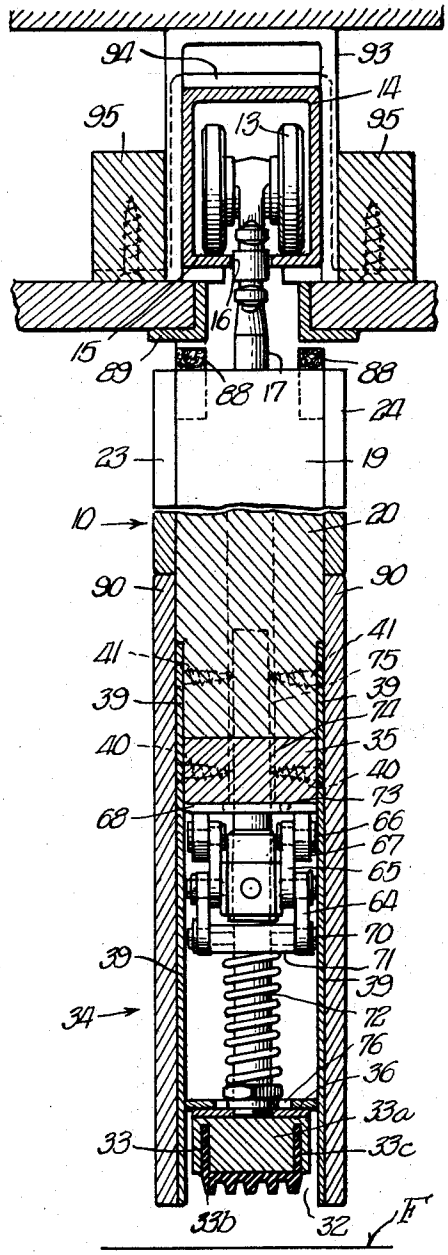
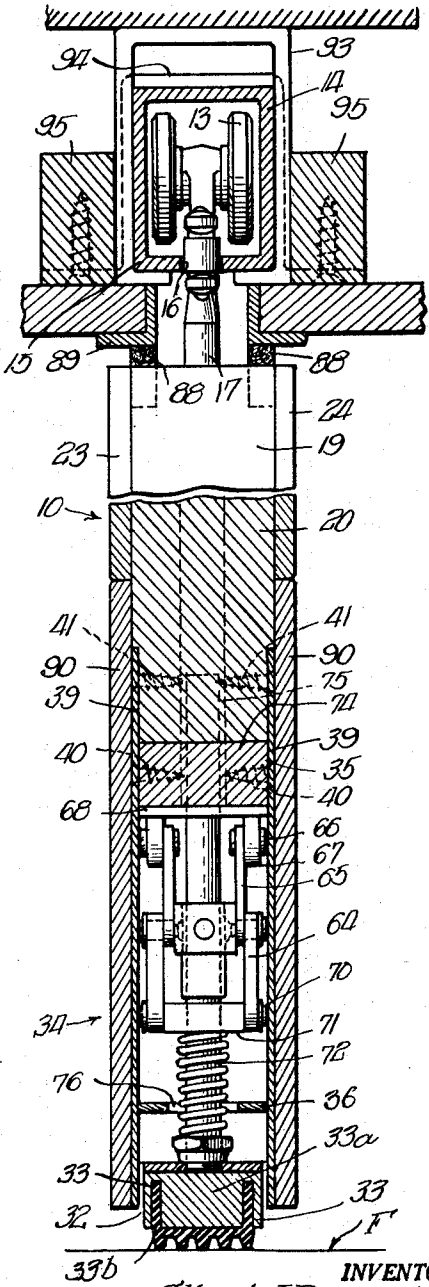


Fig. 4



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SEALING MECHANISM FOR PARTITION PANELS AND THE LIKE

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3 Sheets-Sheet 3

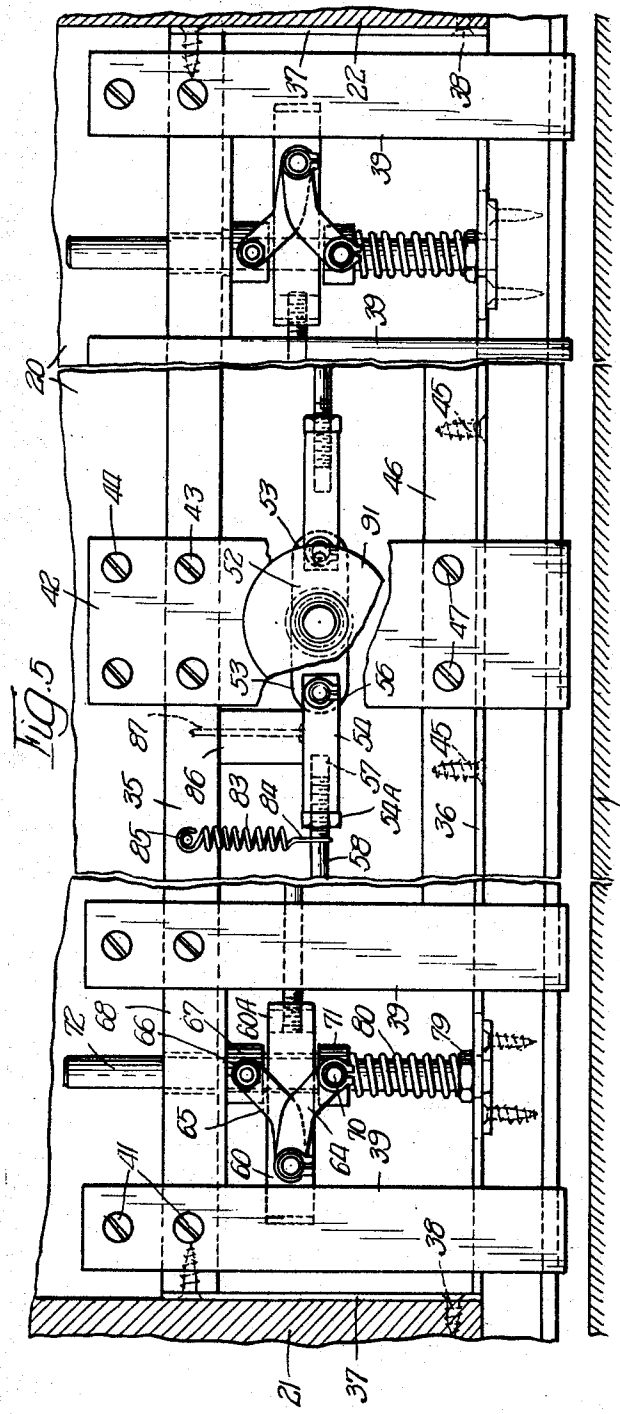

Fig. 5

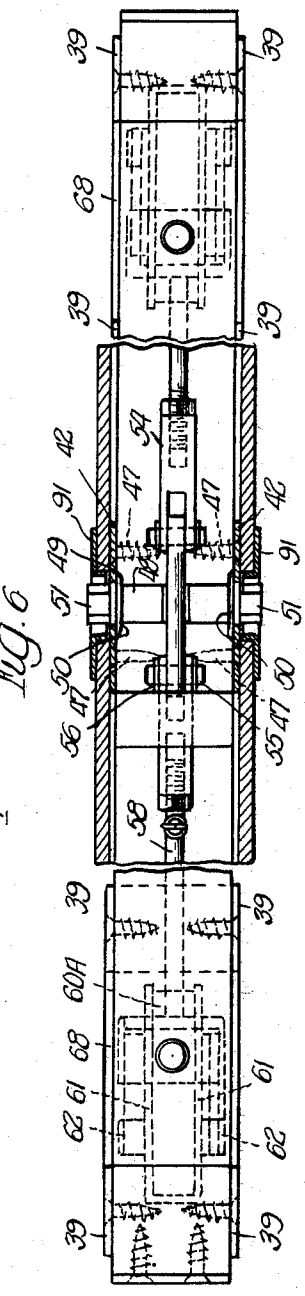

Fig. 6

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United States Patent Office 3,073,381 Patented Jan. 15, 1963

3,073,381
SEALING MECHANISM FOR PARTITION PANELS AND THE LIKE

Albert J. Burmeister, Aurora, Ill., assignor to Richards-Wilcox Manufacturing Company, Aurora, Ill., a corporation of Illinois

Filed Feb. 23, 1960, Ser. No. 10,479
9 Claims. (Cl. 160—40)

This invention relates to moveable partitions panels and particularly to a novel and improved construction of floor seal operating mechanism for use therein.

Although not limited thereto, the invention is particularly useful with partition type panels which are hinged together so that they may be compactly folded when not in use and may thereafter be extended to form temporary walls or partitions as to divide a large room or other area such as an assembly hall or recreation room into smaller rooms or areas or for temporarily relocating or redistributing the partitions and floor areas of adjoining rooms.

Particularly where the floor surface is carpeted or, for any other reason, is desired to be kept smooth and free of obstructions such as tracks or guides along which panels might be guided, it has been customary to suspend the panels by wheeled trolleys or hangers running along overhead tracks at such a height that the lower edge of the panels will hang clear of the rugged or other floor surface. In such arrangements it is important to provide some means to prevent displacement of the unfolded panels through accidental bumping as from moving furniture, bodily contact therewith by individuals engaged in recreational activity, etc. Thus a first and major object of the present invention is to provide novel and improved means or mechanisms whereby the panels, when unfolded to form a temporary wall, may be stabilized in their new position.

Furthermore, it is often desirable that the partitions panels when unfolded and moved into place form a partition as sound proof as possible so that noise or confusion occurring on one side thereof will not be carried over as a disturbing influence to what is occurring on the opposite side. This represents a further general object of the invention. A more specific object is to provide such means and/or arrangement by which the partition panels are adapted to accomplish these ends through mechanism which is both of simple and practical construction but also comprise mechanism that can be conveniently and easily operated.

In my co-pending application, Serial No. 778,775 filed December 8, 1958, I have disclosed one such arrangement wherein partition panels suspend from a wheeled hanger rolling along an overhead track are provided with a floor seal member mounted in a recess extending longitudinally of its lower edge which may be moved bodily out of said recess downwardly into engagement with the floor surface or held in a retracted position wtihin said recess out of engagement with the floor surface. To operate the floor seal member I describe journaling a horizontal operating shaft for rotation about an axis paralleling the floor seal member and which I operatively connect to the floor sealing member by a series of spaced crank and link mechanisms spaced along said shaft, the panel having access openings at its opposite ends through which a suitable tool may be inserted to rotate the shaft so as to effect lowering of the floor seal into resilient floor engagement and to retract the floor seal when necessary to move the panels.

However, in a partition construction wherein the panels are hinged together at their opposite ends so that they may be folded together to occupy a minimum storage area when not in use, such a construction is not particularly advantageous.

Therefore, a first and principal object of the present invention is to provide an arrangement of overhead suspended type of movable panels which can be locked into place and sound-proofed at their bottom edge through mechanism conveniently operable from either or both sides of the panel intermediate its side ends, which mechanism will serve to lower as well as raise the floor seal member into resilient sealing engagement wtih the floor surface over which the individual panels are suspended, as when unfolded to form a temporary wall.

Another object of the invention is to provide such an arrangement wherein not only is the floor seal moved downwardly into resilient engagement with the floor surface but the construction of panels and floor seals as well as their actuating mechanism are such that the force which is relied upon to resiliently urge the floor seal downwardly against the floor surface may also be utilized to effect bodily raising the panel and simultaneously resiliently urging ceiling seals provided on the upper edge of the panels into engagement with the ceiling or provided abutments so that the panel is effectively sound-proofed along both its upper and bottom edges.

A more specific object of the invention is to provide actuating mechanism for the floor seal of a panel as aforedescribed which will embody a linkage system of pivotally connected links having one end link pivotal about a fixed axis and the other end link vertically movable and acting on a floor seal bearing shaft or other member in response to rotary movement induced about an axis parallel to the pivotal connections of said links and to which access may be gained from either side of the panel.

Still another specific object of the invention is to provide a linkage system and operating means therefor as aforedescribed wherein the movable end of the linkage system is confined for vertical movement only and in its upwardly operated direction of movement will act on a stop to raise the floor seal and/or to retain the floor seal within the provided recess, said movable end in its downwardly operated direction permitting the floor seal to fall under the action of gravity and itself to act on a compression spring located between it and the floor seal whereby to obtain a resilient sealing engagement of the floor seal with the floor.

Still another specific object of the invention is to provide such a linkage system and operating mechanism for a floor seal in a partition panel which comprises at least two horizontally spaced pairs of links pivotally connected together at one end, the opposite end of one being pivoted about a fixed immovable axis and the opposite end of the other link being confined for vertical movement between stop means provided on a floor seal bearing shaft and the upper end of a compression spiral spring encircling said shaft and located below said stop means, and rod means connecting the connected ends of each said pairs of links to an intermediately disposed rotatable member which may be effectively operated from either or both sides of the panel to spread apart or to bring together said fixed and moveable ends of the pairs of links to control the position of the floor seal relative to its receiving recess in the bottom edge of the panel.

Many and other more specific objects of the invention as well as advantages and features thereof will be apparent or will become so from the detailed description of a preferred embodiment of the invention which will be now described.

Referring first to the drawings and the several views embodying the same:

FIGURE 1 is a view in side elevation illustrating a series of hingedly connected panels in extended relation

and suspended from an overhead tract and in which panels the present invention is embodied;

FIGURE 2 is a sectional view taken along lines 2—2 of FIGURE 1 to illustrate one manner of hingedly connecting said panels and further showing in dotted lines how the panels may be folded together for compact storage;

FIGURE 3 is a vertical sectional view taken along lines 3—3 in FIGURE 1 and shows the floor sealing member in its retracted position;

FIGURE 4 is a view similar to FIGURE 3 and showing the floor seal in its extended position resiliently engaging the floor surface, the panel being bodily raised so that its ceiling seals also engage the ceiling or upper room structure;

FIGURE 5 is a side elevational view of the floor seal and the operating mechanism therefor, portions being fragmented for clarity of the showing;

FIGURE 6 is a top plan view of the operating mechanism shown in FIGURE 5 and taken along lines 6—6 in said FIGURE 5 looking in the direction indicated by the arrows; and

FIGURE 7 is a sectional view taken along lines 7—7 of FIGURE 5 to show details of construction of the bearing shaft for the floor seal.

In the drawings and particularly FIGURES 1 and 2, the invention has been shown embodied in a series of panels **10** and a semi-panel **11** having adjacent side edges hingedly connected together by suitable means and suspended from wheeled hangers **13** which travel along an overhead track indicated generally at **14**. Although any other desired arrangement may be utilized, this overhead track is illustrated in FIGURE 3 as being of box-type with the wheeled hangers **12** confined within the box track and rolling along the inwardly extending supporting flanges or rails **15** of the track. Between these inwardly extending track flanges **15** is a longitudinally extending slot **16** through which shank or pendant **17** of the hanger carriage extends and to which the panels **10** are swivelly connected. Desirably, one such trolley hanger **13** is provided for each panel **10** although under certain instances, only every other panel will be so provided. By reason of said swivel connection the panels **10** and semi-panel **11** are free to unfold as they are moved along track **14** from a compact folded nested relation as indicated by the dotted lines in FIGURE 2, to their extended position and the reverse. The aforesaid box-type of overhead track with the wheeled hangers enclosed therein is preferred in order that the overhead supporting structure will have a neat, concealed appearance but it will be understood that other types of overhead tracks and other types of wheeled hangers might be employed if desired.

Each partition panel may be made up of any desired material, such as wood, metal or plastic, but in the illustrated embodiment the body of the panel is constructed in the form of a rectangular wood frame **18** comprising horizontal top and bottom wood rails **19** and **20** and vertical size or end rails **21** and **22** (FIGURE 6) rigidly secured together. Secured over the outer surfaces of these marginal frame rails are panel facings **23** and **24** which may consist of thin panel sheets composed of plywood, plastic, aluminum, or the like.

Desirably semi-panel **11** is hingedly connected as by hinges **12A** to frame member **25** seated in recess **26** of the wall structure indicated generally at W. Although, desirably, said support **25** will be mounted within recess **26** so as to resist withdrawal therefrom as when the panels **10** are moved into their extended or partition-forming position, member **25** should be adapted for vertical sliding movement within said recess **26** at least to a limited extent, and sufficient to accommodate raising of the hinged panels as will hereinafter be explained. Where the hangers **13** are located other than centrally of the top ends of the panels **10**, semi-panel **11** will comprise some appropriate fraction other than half the total width of the panel **10** in order to accommodate folding of the panels comprising the partition wall into compact relation. For convenience in moving the panels by means of their wheeled hangers over track **14**, recessed handle means indicated generally at **27** may be provided. Desirably the free end of the outermost panel **10** is provided with a longitudinally-extending bumper **29** of resilient material which takes up slack and provides a resilient snug fit of said end against the opposed side of the wall structure W. Resilient strips **30** of rubber or like material may also be located between the abutting edges of the panels to extend from the top to the bottom thereof. Preferably the abutting edges of the panels will be grooved for this purpose and strip **30** will be cemented in a recess in the base of one of the grooves so as to extend within the other groove and be compressed when the panels are swung into contiguous alignment.

In order to permit freedom of movement of the panels from their compact folded position of storage into their useful extended partition-establishing position, or the reverse, said panels **10** are so suspended from track **14** to allow their lower edges to hang clear of the floor surface lying beneath. Therefore, to effect sealing of the bottom edge of said panels with the floor surface, means are provided as follows:

Mounted for up and down movement in recess area **32** defined in the bottom edge of the partition panels is a horizontally extending floor sealing strip member **33** which floor sealing strip **33** and its operating mechanism are carried in a mounting frame structure indicated generally at **34** (FIGURE 3), which structure is removably mounted at the lower edge of the partition panels **10**.

This frame structure **34** comprises a horizontally extending wood rail **35** abutting against the underside of the frame rail **20** and a horizontally extending flat metallic bar **36** which defines the top of the mentioned bottom recess **32**. Vertically extending end plates **37** join the ends of the wood rail **35** and the metallic bar **36**, said end plates **37** being welded to the metallic bar adjacent their lower end and having their upper ends secured to the wood rail **35** as by screws **38**. These end plates **37** are located inside the lower ends of vertical side rails **20** and may be secured thereto by screws **38**. Arranged on opposite side of the wood rail **35** and metallic bar **36** are two spaced sets of spaced pairs of aligned vertical side plates **39**. These are welded adjacent their lower ends to the metallic bar **36** and are secured at their upper ends to wood rail **35** by screws **40** and to wood rail **20** of the panel proper by screws **41**. Midway between said two spaced sets of vertical side plates are a pair of aligned plates **42** which serve as bearing support into which the ends of operating crank shaft **48** are journaled. Said pair of crank shaft supporting plates **42** are similarly secured at their upper ends to wood rail **35** by screws **43** and to wood rail **20** by screws **44**. Over said metal bar **36** and secured thereto by screws **45** is a supporting wood block **46** to which crank shaft supporting plate **42** is also secured adjacent its lower end as by screws **47**.

Referring now to FIGURES 5 and 6, said rotatable operating shaft **48** is seen to have bearing support at its opposed ends in holes **49** provided in supporting plates **42**, and retaining rings **50** engaging in grooves in said shaft **48** abut against the inner sides of said plates **42** so as to hold the shaft **48** against shifting. It will be noted that said shaft **48** extends horizontally and in a direction transversely of the longitudinal axis of the floor seal **33** so that the opposite ends of said shaft **48** which terminate in square or hexagonal wrench receiving formations **51** are conveniently accessible from the two opposite sides of the panels **10** for rotation, as by means of an operating wrench (not shown).

Midway of the ends of operating shaft **48** is rigidly secured a crank arm **52** divided into diametrically op-

posed arm portions **53** carrying pivot pins **55** to which are connected a pair of links **54**, which are held thereon against endwise shifting by retainer rings **56** seating in grooves provided in the periphery of said pins **55** and so as to engage the outer sides of the end portions of said connecting links **54**. The outer end of each said links **54** has an end bore **57** which receives one end of a connecting rod **58** threadedly connected to said link **54** as by means of Essna nuts **54A** mounted on the bored end of said links **54**. The opposite ends of said connecting rods **58** are threadedly connected into brace **60A** of clevis members **60**, said clevis members each including spaced legs or sides **61** adapted to straddle shaft **72** to which floor seal **33** is secured as hereinafter described. Outwardly from said legs **61** extend horizontal pivot shafts **62** to which are pivotally mounted one end of a pair of dog-leg shaped connecting links **64** and **65**. The opposite ends of links **65** are pivotally connected as by means **66** to bearing member **67** fixedly supported in depending relation from channel plates **68** which are end-welded to said sets of vertical side plates **39**. This provides at **66** a fixed immovable pivot axis intersecting the axis of shaft **72** about which one end of the linkage system (links **65** and **64**) swings. The corresponding end of links **64** which constitute the other end of said linkage system are pivotally connected to pivot studs **70** projecting outwardly from opposite sides of a slide collar or block **71**, said slide collar **71** being apertured to receive vertically standing push-pull shaft **72** on which it has up and down sliding movement. The upper end of this push-pull shaft **72** as seen in FIGURE 2 extends between pivot bearings **67** and through aligned loose fitting guide holes **73**, **74**, and **75** provided in the base of channel member **68**, rail **35** and wood rail **20**, respectively. The lower end of the push-pull shaft **72** extends down through a relatively large opening **76** in metallic bar **36** (FIGURE 3) and is welded into an attachment plate **77** which as seen in FIGURE 7 is fastened by screws **78** into a recessed portion on the top side of the floor sealing member **33**.

As shown in FIGURE 3 floor seal **33** comprises a wood bar or rail **33A** having a longitudinally grooved rubber strip **38B** secured to its underside, the rubber strip being secured to the wood rail by having side lips **33C** extending up into longitudinal slots provided in wood rail **33A**.

Referring again to FIGURE 7 the end portion of push-pull shaft **72** is externally threaded just above its weldment to plate **77** and about shaft **72** is threadedly secured shoulder nut **79** which forms an adjustable shoulder or stop for the lower end of a relatively heavy compression spring **80** which encircles shaft **72** and has its upper end abutting against the underside of slide collar **71**. Mounted about shaft **72** on the opposite side of slide collar **71** is an abutment collar **81** welded to shaft **72** as at **82** so as to be engaged by the top surface of the slide collar **71** for transmitting lifting movement from the slide collar to said shaft **72**.

Referring to FIGURE 5 it will be seen that a vertically directed spring bias is constantly maintained on slide collar **71** by means of spring **83** having its lower end **84** hooked about a nail or screw **85** fastened in horizontal wood rail **35**. Wood block **86** fastened to the underside of wood rail **35** as by means of finishing nails **87** provides an abutment which limits the upward movement of link **54** under the action of biasing spring **83**.

Referring now to the operation of the floor sealing strip **33**, and with particular reference to FIGURES 3 and 4, it will be understood that the sealing member **33** ordinarily will be in the raised position shown in FIGURE 3 to permit unrestricted sliding of the panels by their wheeled hangers **13** along tracks **14**. To effect raising of the sealing member **33** into its retracted position with recess illustrated by FIGURE 3, a suitable tool (not shown) is inserted into either end **51** of crank shaft **48** and turned to rotate shaft **48** in a clockwise direction

which will have the effect of rocking clevis members **60** about axis **66** and to their maximum positions of separation as illustrated in FIGURE 5. This has the further effect of rocking dog-leg links **65** so that slide blocks **71** to which they are pivotally connected are carried upwardly along the push-pull shaft **72**. As slide block **71** is slid upwardly along shaft **72**, the upper surface of said block is brought into engagement with the lower end of the abutment collar **81** for positively lifting the push-pull shaft and the floor sealing member **33** carried thereby into its raised position illustrated by FIGURES 3 and 5. In this most rearward location of studs **62** by which links **64** and **65** are pivotally connected to clevis members **60**, spring **83** serves to lock said links in place and thereby the floor seal member **33** in its raised or retracted position. In the raised position of the adjustment collar **71**, the compression springs are in an extended and relatively uncompressed condition.

When the panels have been unfolded and extended to form a partition, the floor sealing member **33** may be pressed downwardly and out of recess **32** to obtain a relatively firm resilient locking engagement with the floor surface F by rotating shaft **48** this time in the opposite or in a counterclockwise direction, such counterclockwise rotation effectively drawing the clevis members **60** toward each other. The outer end of links **65** being mounted to pivot about a fixed axis **66** transversely intersecting the axis of the push-pull shaft **72**, the effect of moving clevis members **60** inwardly toward each other is to shift the pivotal connection of the dog leg links at **62** to the opposite or inner side of shaft **72** which exerts through links **64** a downward force on collar or side block **71** moving it downwardly along the push-pull shaft so as to compress compression spring **80** against nut **79** to lower the floor sealing member into resilient yielding engagement with the surface of the floor beneath.

Because of the force exerted by slide collar **71** through said counterclockwise rotation of crank shaft **48** acts on compression spring **80** and therethrough to the floor sealing member **33**, if the floor F is not level, or if there is an obstruction at one end of the floor seal **33**, the compression springs **80** will accommodate tilting of the floor sealing member to obtain the required stability and seal. The ribbed rubber surface **33B** of the floor sealing member is utilized to effect a firm acoustical seal with the floor surface be it a hard or a carpeted surface. Furthermore by suitable adjustment of the nuts **79** along shaft **72**, the compression springs **80** may be made to exert more or less downward pressure against the floor.

It will be appreciated that the downward pressure exerted by the floor sealing member against the floor has a reaction upwardly against the panel **10** which serves to raise the panel toward the ceiling. To accommodate this upward lifting or raising of the hinged panels, frame member **25**, as previously mentioned, is adapted for vertical sliding movement within its mounting recess **26**. However, since the distance that the hinged panels may be vertically displaced is usually small, an alternative would be to mount the two portions of the hinges **13** for relative vertical sliding movement and by this means accommodate raising of the individual panels.

Optionally, one or more sealing strips **88** may be provided on the top edge of the panels or carried by track **14** or affixed to the ceiling of the room over the top edge of the panels, so that this reaction lifting of the panel may be utilized to effect a ceiling closure. In the illustrated embodiment two such sealing strips **88** are shown, extending lengthwise of the top edge of the panels **10** and adapted for pressure engagement against the surface of members **89** as the panel is raised. Such strips may be composed of felt, sponge rubber or any other useful material and are preferably secured within a recess provided within said top edge of the panel. The height of said strips above the top edges of the panels may be just sufficient to permit clearing or avoiding friction contact

with portions 89 during the unfolding of the panels and movement of the panels along tracks 14, and in any event should be sufficiently close that when the floor seal member 33 is urged into sealing engagement with the floor, the resultant lifting of the panels will simultaneously effect a compressing of said ceiling seals against portions 89, thus completing the seal of the panels at both top and bottom as well as stabilizing the formed partition wall against accidental dislodgement.

As previously noted the mounting frame 34 structure for the floor seal member 33 and its operating mechanism is detachably mounted on the lower edge of the partition panel through the previously mentioned vertical end plates 39 and crank shaft bearing shafts 42 which are secured at their uppermost ends to rail 20 and end plates 37 which are secured to vertical rails 21 and 22, and may be removed as a unit by simply loosening and removing screws 38, 41 and 44. It will be further appreciated that the frame for said operating structure desirably will be enclosed by panels 90 of suitable material and that about the access openings in said panels through which the tool attachment ends 51 of the crank shaft 48 extend may be completed by suitable annular cap members 91.

As previously mentioned, the lower ends of end plates 37, side plates 39 and crank shaft supporting plate 42 extend below their welded connection to supporting metallic bar 36 to line the sides of recess 32 usefully forming vertical guide surfaces against which the sides and ends of the floor sealing member 33 will have vertical sliding movement as it is pressed downwardly into engagement with the floor surface or raised into its receiving recess 32. By reason of the fact that these plates are preferably of metal, they will act to strongly resist any side stresses against the partition panel reacting against the locked engagement of the floor sealing member with the floor surface.

Returning to FIGURE 3, although overhead track 14 may be supported in any conventional manner, in said FIGURE 3 it is shown supported by spaced U-shaped brackets 93 having overhead attachment and by U-shaped clips 94 secured to wood side members 95. As noted previously the wheeled hangers 12 must be operative to accommodate the upper lifting of the entire panels 10. Although the wheeled hangers 12 have thus far been described as being raised in their entirety within the box cart 14, the diameter of the wheels and the vertical dimensions within the box track being so related as to permit such lifting; however, the mounting of the pendant 17 of said wheeled hangers 13 in the panels 10 may be modified to permit relative vertical sliding of the panel thereto so as to accommodate the raising of panels 10 and without having to raise the hangers themselves.

From the above description of the invention it will be apparent that all of the objects as well as advantages described for the invention may be obtained in a convenient, simple and entirely practical manner whereby foldable walls comprising panels hingedly connected together may be conveniently suspended from their overhead tracks and when moved into location to form a wall or partition, conveniently stabilized in such position and simultaneously affording seals both at the floor and at the ceiling against penetration of sound and the like. It will be furthermore understood that while what has been illustrated and described is regarded to be a preferred embodiment of the invention, nevertheless the illustration and description thereof is intended as exemplary of the invention and that numerous modifications and/or rearrangements may be made therein without departing from the spirit of the invention.

Thus having described my invention, I claim:

1. In combination, a panel, means for suspending said panel so that its lower edge is spaced over a floor surface, a floor sealing member mounted on said panel for vertical movement into and out of engagement with the floor surface over which the panel is suspended, a pair of horizontally spaced slide portions each confined for vertical movement in a direction toward and away from said floor sealing member, compressible spring means between each said slide portion and floor sealing member through which the motion of the slide portion is translated into a force exerted on the floor sealing member, crank means supported intermediate said slide portions for turning about an axis disposed transversely of the panel and operable from either side of said panel, linkage means on either side of said crank means including a first link pivotally connected to a respective one of said slide portions, a second link pivotally connected to said first link and to a fixed axis disposed above said slide portion, each said pivotal connections being disposed about spaced axes parallel to said fixed axis and the axis about which the crank means is turnable, and a connector joined to said two links adjacent their pivotal connection and to the crank means in offset relation to the axis about which the crank means turns such that rotation thereof in one direction about its axis will cause the compression spring to force the floor sealing member into a position of yielding engagement with the floor surface and rotation of the rotatable means in the opposite direction will return the floor sealing member to an out-of-floor engagement position, and further means cooperating with said linkage means and rotatable member whereby the floor sealing member may be releasably retained in either of said positions.

2. In combination, a panel, means for suspending said panel so that its lower edge is spaced over a floor surface, a floor sealing member mounted on said panel for vertical movement into and out of engagement with the floor surface over which the panel is suspended, a crank means intermediate the ends of said panel and operable to turn about an axis disposed transversely of the floor sealing member, linkage means to each side of said crank means each including a slide portion confined for vertical movement in a direction toward and away from said floor sealing member, a first link pivotally connected to the slide portion, a second link having one end pivotally connected to the first link and its other end pivotally connected to turn about a fixed axis, and connecting means joined to said links adjacent their pivotal connection and also to the crank means in offset relation to the axis about which it turns, compressible spring means between said slide portions and floor sealing member through which the motion of the slide portion is translated into a force exerted on the floor sealing member, and fixed abutment means in the path of said slide portions to the other side thereof, said crank means being operable through either side of said panel, rotation thereof in one direction causing the slide portion of the linkage means to act on the compression spring to force the floor sealing member into yielding engagement with the floor surface beneath and rotation of the crank means in the opposite direction causing the slide portion to act on said abutment means to return the floor sealing member to an out-of-floor engagement position.

3. In combination, a supporting track extending above a floor surface, hanger means movable along said track, a panel carried by said hanger means, said panel including a recess in its bottom edge extending lengthwise thereof, a floor seal bearing member mounted in said recess for vertical movement into and out of engagement with a floor surface over which the panel is suspended by said hanger means, a pair of vertically reciprocable mounting shafts at spaced locations within said panel on which said floor seal bearing member is mounted, a rotatable crank member mounted between said shafts for rotational movement about an axis disposed in a direction normal to the said shafts and the floor seal, said crank member being operable from either side surface of the panel through provided openings in said surfaces of the panel, a slide collar reciprocably mounted

on each said shafts, a compression spring about each said shafts and disposed between the said collar and the floor seal bearing member through which motion of the slide collars along said shafts is translated into force exerted on the floor seal member, two pairs of links pivotally connected together at one end, one link of each pair having its opposite end pivotally connected to a fixed pivot point and the other link of each pair having its other end pivotally connected to the slide collar, and means pivotally connected at one end to the pivotal connection of each pair of links and its other end to said rotatable crank member so that rotation of said crank member in one direction will draw said pairs of links toward the operating member causing the slide collar to act on the compression springs to yieldingly force the floor seal bearing member outwardly of the recess and into yielding engagement with the floor surface beneath, and rotation of the crank member in the opposite direction will release the action of the slide collar on the compression spring to permit return of the floor seal bearing member to its retracted position within said recess.

4. In combination, a supporting track extending above a floor surface, hanger means movable along said track, a panel carried by said hanger means, said panel including a recess in its bottom edge extending lengthwise thereof, a floor seal bearing member mounted in said recess for vertical movement into and out of engagement with a floor surface over which the panel is suspended by said hanger means, a pair of vertically reciprocable mounting shafts at spaced locations within said panel on which said floor seal bearing member is mounted, a rotatable crank member mounted between said shafts for rotational movement about an axis disposed in a direction normal to the said shafts and the floor seal, said crank member being operable from either side surface of the panel through provided openings in said surfaces of the panel, stop means fixed on said shafts, a slide collar reciprocably mounted on each said shafts below said stop means, a compression spring about each said shafts and disposed between the said collar and the floor seal bearing member through which motion of the slide collars along said shafts is translated into forces exerted on the floor sealing member, two pairs of links pivotally connected together at one end, one link of each pair having its opposite end pivotally connected to a fixed pivot point and the other link of each pair having its other end pivotally connected to the slide collar, and means pivotally connected at one end to the pivotal connection of each pair of links and its other end to said rotatable crank member so that rotation of said crank member in one direction will draw said pairs of links toward the operating member causing the slide collar to act on the compression springs to yieldingly force the floor seal bearing member outwardly of the recess and into yielding engagement with the floor surface, beneath, and rotation of the crank member in the opposite direction will release the action of the slide collar on the compression spring and draw it upwardly along said shaft and into engagement with said stop means thereon to return the floor seal bearing member to its retracted position within said recess.

5. In combination, a supporting track extending above a floor surface, hanger means movable along said track, a panel carried by said hanger means, said panel including a recess in its bottom edge extending lengthwise thereof, a floor seal bearing member mounted in said recess for vertical movement into and out of engagement with a floor surface over which the panel is suspended by said hanger means, a pair of vertically reciprocable mounting shafts at spaced locations within said panel on which said floor seal bearing member is mounted, a rotatable crank member mounted between said shafts for rotational movement about an axis disposed in a direction normal to the said shafts and the floor seal, said crank member being operable from either side surface of the panel through provided openings in said surfaces of the panel, a slide collar reciprocably mounted on each said shafts, a compression spring about each said shafts and disposed between the said collar and the floor seal bearing member through which movement of the slide collars along said shafts is translated into forces exerted on the floor seal member, a pair of clevis members each having legs straddling one of said shafts, two pairs of links each having one end pivotally connected to each of said clevis members, said pairs of links being on opposite sides of the clevis members, one link of each pair having its opposite end pivotally connected to a fixed pivot point located above the clevis member and intersecting the axis of a respective shaft and the other link of each pair having its other end pivotally connected to the slide collar, and rod means pivotally connected at one end to each said clevis member and its other end to said rotatable crank member at opposite sides of the axis about which it rotates so that rotation of said crank member in one direction will draw said pairs of links toward the operating member causing the slide collar to act on the compression springs to yieldingly force the floor seal bearing member outwardly of the recess and into yielding engagement with the floor surface beneath, and rotation of the crank member in the opposite direction will release the action of the slide collar on the compression spring to permit return of the floor seal bearing member to its retracted position within said recess, said floor seal bearing member being locked in its extended position when the connection of the clevis members with the pairs of links is located to the inboard side of the vertical shafts and locked in its retracted position when said connection is located to the outboard side of said shafts.

6. In combination, a supporting track extending above a floor surface, hanger means movable along said track, a panel carried by said hanger means, said panel including a recess in its bottom edge extending lengthwise thereof, a floor seal bearing member mounted in said recess for vertical movement into and out of engagement with a floor surface over which the panel is suspended by said hanger means, a pair of vertically reciprocable mounting shafts at spaced locations within said panel on which said floor seal bearing member is mounted, a rotatable crank member mounted between said shafts for rotational movement about an axis disposed in a direction normal to the said shafts and the floor seal, said crank member being operable from either side surface of the panel through provided openings in said surfaces of the panel, stop means fixed on each said shafts, a slide collar reciprocably mounted on each said shafts below said stop means, a compression spring about each said shafts and disposed between the said collar and the floor seal bearing member through which movement of the slide collars along the shafts is translated into forces exerted on the floor seal bearing member, two pairs of dog leg links pivotally connected together at one end, one link of each pair having its opposite end pivotally connected to a fixed pivot point located above said pivotal connection of the links and intersecting the axis of the respective shaft at parallel to the axis about which the crank member rotates, and the other link of each pair having its other end pivotally connected to the slide collar, and a pair of rod means each pivotally connected at one end to said pivotal connection of each pair of links and their other ends to said rotatable crank member at diametrically opposite locations thereon so that rotation of said crank member in one direction will draw said pairs of links toward the operating member causing the slide collar to act on the compression springs to yieldingly force the floor seal bearing member outwardly of the recess and into yielding engagement with the floor surface beneath, and rotation of the crank member in the opposite direction will release the action of the slide collars on the compression springs and draw them upwardly along the shafts into engagement with stop means fixed thereon so as to return the floor seal bearing member to its retracted position within said recess, said

floor seal bearing member being locked in its extended position when the connections of the clevis members with the pairs of links are located to the inboard side of the vertical shafts and is locked in its retracted position when said connections are located to the outboard side of said shafts.

7. In combination, a panel, means for suspending said panel so that its lower edge is spaced over a floor surface, a pair of mounting shafts vertically reciprocally supported by said panel at spaced locations adjacent the lower end of the panel, a floor sealing member mounted on the lower end of said shafts so as to be vertically movable with reciprocation of said shafts into and out of engagement with the floor surface over which the panel is suspended, a rotatable crank means disposed between said two shafts and operable through at least one side of the panel for rotation about an axis disposed normal to the direction of said shafts and transversely of the floor sealing member, a pair of links adjacent each said shafts and on opposite sides of the crank means, the links of each pair being pivotally connected together adjacent one end, one link of each pair being pivotally connected at their other end to turn about a fixed pivotal axis paralleling the axis about which the crank means rotates, and the other link of each pair being pivotally connected to a slide portion confined for vertical movement along a respective one of said mounting shafts, and connector means pivotally connected to each said pairs of links adjacent their pivotally connected ends, said connectors being connected to the crank means in offset relation to the axis about which the crank means is rotatable, the crank means being rotatable in one direction to a position which will bring the pivotally joined ends of the links of the two pairs sufficiently close to each other as to force the floor sealing member into engagement with the floor surface below the panel, the crank means being rotatable in the opposite direction to a further position where said pivotally joined ends of the links of said pairs are moved apart sufficiently to return the floor sealing member to an out-of-floor engagement position, and means cooperating therewith to hold the crank means in each of said positions to which it is rotatable.

8. In combination, a panel, means for suspending said panel so that its lower edge is spaced over a floor surface, a floor sealing member mounted at the lower end of said panel for vertical movement into and out of engagement with the floor surface over which the panel is suspended, a pair of spaced slide portions, means confining each said slide portions for movement along parallel spaced vertical paths, two pairs of links, the links of each said pair being pivotally connected together adjacent one of their ends, one of said links being pivotable about a fixed axis disposed above said floor sealing member and the other link of each pair having its other end pivotally connected to a respective one of said slide portions, crank means disposed intermediate said pairs of links and mounted for rotation about an axis intermediate and parallel to said fixed axes about which the first link of each said pairs is pivotable, and connector means connected to said crank means in offset relation to the axis about which the crank means turns, said connector means being further connected to adjacent the pivotal connection of the links of each said two pairs, the crank means being rotatable in one direction to a position where the pivotal connections of the links of the two pairs are brought to the inboard side of the vertical paths along which movement of the slide portion is confined which forces the floor sealing member downwardly into engagement with the floor surface, the crank means being rotatable in the opposite direction to a second position where said pivotal connection of the links of the two pairs are moved to the outboard side of said vertical paths to return the floor sealing member to an out-of-floor engagement position.

9. In combination, a panel, means for suspending said panel so that its lower edge is spaced over a floor surface, a floor sealing member mounted on said panel for vertical movement into and out of engagement with the floor surface over which the panel is suspended, two horizontally spaced pairs of links, one link of each pair having an end pivotally mounted about a fixed horizontal axis disposed above and transversely related to the floor sealing member, a pair of slide portions each confined for vertical movement in a direction toward and away from a respective one of said fixed axes, the other link of each said pairs being pivotally connected at one end to said slide member and adjacent its other ends to the first mentioned link of said pair, compressible spring means between each said slide portions and floor sealing member, crank means rotatable about a fixed axis disposed between and paralleling said fixed axes about which the first link of each said pair of links is pivotally connected, said crank means being operable through either side of said panel, and connector means connected to said crank means in offset relation to said axis about which the crank means rotates, said connector means being also connected to adjacent the pivotal connection of the links of each said pairs, the crank means being rotatable in one direction to draw said pivotal connections of the links of each pair toward each other sufficiently to urge the slide portions downwardly against the respective compression springs to introduce a compressive force on the floor sealing member which urges it into yielding engagement with the floor surface and the crank means being rotatable in the opposite direction to move said pivotal connections apart so as to release said force and return the floor sealing member to an out-of-floor engagement position.

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